8/19/92

YPLSF
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MEMORANDUM

SUBJECT: Yakima Pesticide Laboratory Remedial Action Goals

FROM: Patricia Cirone Pat Cirone

TO: Carol Rushin

The process used to develop Remedial Action Goals for soil clean up at the Yakima Pesticide Laboratory appears to be in accordance with EPA guidelines. The levels of contaminants which will be left in soil should not pose a threat to human health, if the goals set forward in the document are achieved.

Based on the limited documentation provided, the chemicals for which goals were established are also appropriate.

With respect to some chemicals for which action levels were not set we do have some concerns. Because of sheer toxicity, Azinphosmethyl and TEPP should be considered. So, for that matter, should parathion. However, all three of these are also quite labile, and may not even be in the soil any longer. Diazinon, although not highly toxic in itself, can be converted to sulfotepp, which is super toxic, under the right conditions of hydrolysis. Diazinon also contains sulfotepp as an occasional impurity.

Since benzene is a class A Carcinogen, and can impact ground water, the MCL for benzene should be included as an action level.

If the soils are in fact below detection and there is no exposure then the site is clearly not presenting a risk. However, it should be noted according to the best professional judgement of our regional toxicologist the "action levels" determined for several of the "priority chemicals" are above background for this area. Lindane is also above background. Chlorpyrifos at 255 ppm is above background. This is a significantly toxic organophosphate, with an LD50 of around 130 mg/kg. Because of its chlorination, it is also fairly persistent. Animals which ingest soil or live in the soil would not be at risk.The action level of 850 ppm in soil for 2,4-D is also above background. Although it is not a highly persistent compound, it is polar enough to enter ground water. It can cause phytotoxicity to sensitive crops like tomatoes and grapes at very low levels.